

REMARKS

Claims 1-44 are pending in the present application. In the foregoing amendments, claims 1, 15-17, 24-25, 27-29, 31-33, 35-36, 39-41, and 43-44 have been amended. Applicants submit that these amendments are made for clarity and for correcting formal errors; they are not made for reasons of patentability. No new matter has been added by these amendments.

Applicants wish to express appreciation to the Examiner for the courtesies extended during a telephone interview with the undersigned.

In the Office Action dated 05/05/2005, the Examiner rejected claims 1, 3, 6-9, 15 17, 19 and 20 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, Jr. et al. (U.S. Patent No. 6,563,809), hereinafter referred to as Proctor, in view of Seta (U.S. Patent No. 6,483,825), hereinafter referred to as Seta.

The Examiner rejected claims 2, 4, 10-14 and 18 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Seta as applied to claims 1, 3, 6-9 and 15, in further view of Blanchard et al. (U.S. Patent No. 5,862,132), referred hereinafter as Blanchard.

The Examiner also rejected claims 6, 16 and 21 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Seta and in further view of Kanterakis et al. (U.S. Patent No. 6,574,267), hereinafter referred as Kanterakis.

The Examiner also rejected claims 22 and 23 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Blanchard and in further view of Eggleston et al. (U.S. Patent No. 5,764,899), hereinafter referred as Eggleston.

The Examiner also rejected claims 24-27 and 29-32 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Tanaka (U.S. Patent No. 5,845,212).

The Examiner also rejected claim 28 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Tanaka as applied to claims 24-27 and 29-32 and in further view of Kanterakis.

The Examiner also rejected claims 33-37, 39 and 41-44 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Eggleston (U.S. Patent No. 5,764,889), hereinafter as Eggleston.

The Examiner also rejected claim 38 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Eggleston as applied to claims 36, 37, 39 and 41-44 and in further view of Tanaka.

The Examiner also rejected claim 40 under 35 U.S.C. § 103(a) as being unpatentable over Proctor, in view of Eggleston as applied to 36, 37 39 and 41-44 and in further view of Kanterakis.

The Examiner further objected claim 36 because of the misspelling of “instrucations”.

Applicants respectfully request entry of the foregoing amendments and reconsideration of the application in light of the amendments above and the remarks below.

Independent Claims 1 and 17 and Their Dependent Claims

Independent claims 1 and 17 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Seta.

Seta discloses a method for *synchronizing the time of a plurality of base stations to the time of a base station controller* which is equipped with a GPS receiver. Seta is silent with respect to any mention of pilot signals or the use thereof.

Proctor discloses a subscriber-controlled registration technique in a CDMA system. A subscriber monitors a congestion indicator signal broadcast by a base station with which it desires to register. If the congestion indicator signal indicates that the base station is operating in a congested state, the mobile station selects another base station in the system. Otherwise, it attempts to register with the first selected base station.

In the Office Action, the Examiner cited a section of Proctor, col. 2, lines 31-36, as allegedly disclosing “pilot bursts.” Applicants respectfully disagree. Proctor states in the cited section that “Typically, *the pilot channel constitutes a data signal having a predetermined pattern*. The pilot channel typically carries no information. *Mobile stations use the pilot channel on initialization to acquire carrier phase and timing relationships*” (emphasis added). However, Proctor provides no further teaching or suggestion as to what the “predetermined pattern” entails, how it is generated or transmitted, the use thereof, and so on. In sum, Proctor fails to teach or suggest generating or transmitting “pilot bursts,” as recited in Applicants’ claims.

Furthermore, Proctor appears to be teaching away from transmitting pilot channels in synchronization. For example, Proctor teaches that “a mobile station may exploit the predetermined *timing offsets among the pilot channels* in the system to facilitate acquisition of the pilot channels from other base stations” (see col. 3, lines 14-17).

Thus, not only neither of Proctor, Seta, and other cited references, alone or in combination, teaches or suggests every limitation of claim 1 or 17, there is no motivation for one skilled in the art to combine Proctor and Seta, nor does the combination yields “generating at each transmission source a plurality of pilot bursts for a pilot reference; transmitting the plurality of pilot bursts in synchronization with the time reference....,” as recited in claim 1 or 17 (emphasis added).

For at least the reasons stated above, independent claims 1 and 17 are patentable over the cited references. Applicants respectfully request the rejections of these claims be withdrawn.

Claims 2-15 and 18-21 each depend from one of independent claims 1 and 17, and are also allowable. Applicants respectfully request the rejections of these claims be withdrawn.

Independent Claim 16

Claim 16 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Seta and in further view of Kanterakis. On page 15 of the Office Action, the Examiner also cited Blanchard in rejecting claim 16.

Blanchard teaches a system capable of data transmission in a TDM mode, wherein each transmitter is assigned a time slot during which that transmitter is allowed to transmit. The transmitters are synchronized to a common timing reference, such that the receivers are able to identify the time slot associated with each transmission. While Blanchard discloses transmission of a “TDMA burst of data; i.e., message” (see Blanchard, col. 2, line 26), Blanchard does not teach transmission of pilot bursts. Further, the purpose of the timing reference in Blanchard is to allow the mobile transmitters to synchronize with the receiver timing. Blanchard does not teach synchronization of pilot bursts for multiple transmitters.

Applicants respectfully disagree with the Examiner’s contention that “Blanchard TDMA bursts suggests of being a pilot burst since as disclosed in col. 3, lines 10-27 that such burst includes control information-pilot specifying its locations as well as other control messages” (see

Office Action, page 15, lines 14-16). Applicants note that this cited section of Blanchard describes a situation where “transmitters 2-6 may be provided and affixed to trucks of a specific company whereby the receivers would be located to provide adequate coverage in the area where the trucks may roam.” There is no teaching or suggestion of pilot bursts, or the use thereof.

Kanterakis teaches transmitting a spread access preamble at a successively higher power if no acknowledgement corresponding to any of the preamble transmissions is received, up to a maximum allowed number of preamble transmissions.

Thus, neither of Proctor, Seta, Blanchard, Kanterakis, and other cited references, alone or in combination, teaches or suggests “transmitting the plurality of pilot bursts in synchronization with the time reference, wherein pilot bursts from the plurality of transmission sources are aligned in time at the time of transmission....,” as recited in claim 16 (emphasis added). For at least these reasons, Applicants submit that independent claim 16 is patentable over the cited references. Applicants respectfully request the rejection of claim 16 be withdrawn.

Independent Claim 22 and Dependent Claim 23

Claims 22 and 23 were under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Blanchard and in further view of Eggleston.

Eggleston discloses a method of communicating an optimized reply in a communication system including a communication server, a host server, and a wireless subscriber unit.

Neither of Proctor, Blanchard, Eggleston, and other cited references, alone or in combination, teaches or suggests “a modem block coupled to the RF module and configured to process the conditioned signal to recover a plurality of pilot references transmitted from a plurality of access points, wherein the pilot reference from each access point is transmitted in pilot bursts that are synchronized with a system time reference, and wherein the pilot bursts from the plurality of access points are aligned in time at the time of transmission,” as recited in claim 22 (emphasis added). For at least these reasons, Applicants submit that independent claim 22 is patentable over the cited references. Applicants respectfully request the rejection of claim 22 be withdrawn.

Claim 23 depends from independent claim 22 and, therefore, is also allowable. Applicants respectfully request the rejections of claim 23 be withdrawn.

Independent Claims 24, 33 and 36 and Their Dependent Claims

Independent claim 24 was rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Tanaka. Independent claims 33 and 36 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Proctor, in view of Eggleston.

Tanaka discloses a mobile communication system capable of effectively carrying out a hand-over control. In Tanaka, a base station announces a transmission power of the base station and uplink reception power and uplink signal quality as information to a mobile station. The mobile station judges whether or not it is necessary to carry out hand-over control in accordance with the information and a predetermined hand-over control information.

Neither of Proctor, Tanaka, and other cited references, alone or in combination, teaches or suggests “receiving a pilot reference transmitted in pilot bursts that are synchronized with a time reference; and determining a link condition based on the pilot reference,” as recited in claim 24, 33, or 36. For at least the reasons stated above, Applicants submit that independent claims 24, 33, and 36 are patentable over the cited references. Applicants respectfully request the rejections of these claims be withdrawn.

Claims 25-32, 34-35 and 37-44 each depend from one of independent claims 24, 33, and 36, and are also allowable. Applicants respectfully request the rejections of these claims be withdrawn.

Claim Objection

In the foregoing amendments, claim 36 has been amended to correct the typographical error, thereby obviating the objection.

Abstract

In the Office Action, the Examiner objected the abstract of the disclosure because the length exceeds 150 words. In the foregoing amendments, Applicants have shortened the abstract to be less than 150 words.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application is earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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